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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,188	07/02/2002	Dov Moran	10519/1167 (MSA-0019-2-US)	4688
67813 7590 03/17/2010 BRINKS HOFER GILSON & LIONE/SanDisk P.O. BOX 10395 CHICAGO, IL 60610			EXAMINER TINKLER, MURIEL S	
			ART UNIT 3691	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/089,188	Applicant(s) MORAN ET AL.	
	Examiner MURIEL TINKLER	Art Unit 3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4 and 6-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4 and 6-17 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This application has been reviewed. The status of the claims are as follows: claims 1-17 were previously pending; claims 2, 3 and 5 have been cancelled; claims 1, 4 and 6-17 have been amended; no claims have been added; therefore, claims 1, 4 and 6-17 are currently pending and have been examined. The rejections are as follows.

Terminal Disclaimer

1. The terminal disclaimer filed on June 26, 2009 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent Numbers US 6,324,537 B1 and US 6,539,380 B1 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Objections

2. Claim 1 is objected to because of the following informalities: “without assistance from an operating system of the host device”. This amended limitation implied that the host device is not contacted or accessed at all. The specification does not specifically disclose this term. Instead, the specification discloses, without any type of management from the host (see page 10 of the specification). Therefore, it is possible for the storage device to contact the host system. The Examiner has interpreted “without assistance” to be “without any type of management”. Appropriate correction is required.

Response to Arguments

3. Applicant's arguments, see page 5, filed November 23, 2009, with respect to the Double Patenting Rejection have been fully considered and are persuasive. A terminal disclaimer was filed on June 26, 2009 and was approved on July 20, 2009. The Double Patenting Rejection of claim 42 has been withdrawn.

4. Applicant's arguments, see pages 5-6, filed November 23, 2009, with respect to claim objection(s) have been fully considered and are persuasive. Claims 1 and 2 have been amended to recited/describe the letters within the acronym (USB). The claim objection(s) of claims 1 and 2 has been withdrawn.

5. Applicant's arguments filed November 23, 2009, have been fully considered but they are not persuasive. The Applicant argues (see pages 6-7) that the cited prior art does not teach: a removable storage device comprising a biometric interface for receiving a request to access a flash memory of the removable storage device; a removable storage device comprising a processor for comparing, **without assistance from an operating system of a host system**, a request at a biometric interface to access flash memory of the removable storage device with at least one permission to determine whether to grant access to the flash memory of the removable storage device.

6. Regarding the argument that the cited prior art does not teach a removable storage device, communicating via USB to the host, comprising a biometric interface for receiving a request to access a flash memory of the removable storage device, the Applicant states, on page 6 of the response filed on November 23, 2009, that Gullman

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teaches a security apparatus (i.e. removable storage device) that receives a biometric input (i.e. biometric interface) [from] a user and compares the received biometric input to a stored template. The Examiner cited Helland as disclosing a USB interface and a flash memory device for storing at least one permission for determining access to the resource. The Examiner asserts that the combination of the two reference teach this limitation.

7. Regarding the argument that the cited prior art does not teach a removable storage device comprising a processor for comparing, **without assistance from an operating system of a host system**, a request at a biometric interface to access flash memory of the removable storage device with at least one permission to determine whether to grant access to the flash memory of the removable storage device, the Applicant appears to emphasize "without assistance from an operating system" (see page 6). The Examiner has reviewed the specification of this application. It appears that the only mention of this "without assistance" feature can be found on page 10:

*"Memory component 20 more preferably features instructions for memory, such that a data processor 18 is able to manage memory component 20 through flash controller 22, most preferably **without requiring any type of management** from an external computational device such as host external computational device 11."*

Therefore, the term "without assistance" is not disclosed in the specification. In fact, the word "assistance" is not disclosed in the specification at all. However, the Examiner will interpret "without assistance from an operating system of the host" to be "without requiring any type of management from the host".

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8. The Examiner also points out that this wording, as well as the disclosure from the specification, in no way limits the flash memory device or removable storage device from accessing information stored on the host system. In either case, the Examiner will interpret the proposed amendment as accessing only information stored on the flash memory (similar to figure 5) for determining the user biometric information. If this interpretation is taken, it is important to note that **the specification does not disclose such a function**. This limitation points to figure 4, which states the use of a credit card to determine permission (to the host system), not biometric information. Page 16 of the specification of this application (see lines 8-15) discloses that a biometric detection device of figure 2 can be substituted or implemented into figure 4, using the method of figure 3. In the method of figure 3, the host system does provide assistance (see step 2, step 7). However, in the interest of compact prosecution, the Examiner gives the Applicant the benefit of the doubt.
9. Gullman discloses a biometric device that checks the data it receives against stored information provided within the biometric device (see column 6, lines 13-27).

[see column 5, lines 57-65]: "The security apparatus [14] initially is configured in an enroll mode... one or more, preferably several biometric samples are obtained and permanently stored as templates... During normal operations, a biometric input sample is compared to one or more of the templates..."

[see column 6, lines 12-22]: "a user... enters biometric input... The biometric input is received from the biometric sensor [18] into input section [33]... the biometric input is compared to one or more stored templates... If the correlation factor indicates correlation closer than a prescribed threshold level... then the biometric verification is successful."

Therefore in Gullman, the security device generates an access token, formed from biometric information. If the biometric information does not match stored information,

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then a valid token is not created and access to the host device is not obtained.

Gullman also discloses that said templates are stored on the biometric security mechanism (see column 2, lines 28-31).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claim 1-9, 12 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gullman et al. (US 5,280,527) in view of Helland et al. (US 6,014,666), hereafter referred to as Gullman and Helland.

13. Regarding claim 1, Gullman discloses:

- a. A device for controlling access to a resource, access being provided through a host device, the device (see Abstract)
 - b. an input for receiving a request to access the resource (figure 1 #14—biometric security sensor); and,
 - c. a processor for executing said at least one instruction and for comparing said request to said at least one permission, such that if said at least one permission includes a type of access requested in said request, access to the resource is provided, and alternatively if said at least one permission does not include a type of access requested in said request, access to the resource is not provided (see figure 2 #22—processor);
 - d. a biometric interface (see figure 1, element 14 “sensor”; figure 2, element 18; and figure 2, element 18).
 - e. determining permission of the user, via a biometric security apparatus (figure 1, element 14), and stored memory (figure 2, element 22), without any type of management from an operating system of the host device (see column 2, lines 20-39; and, column 5, line 57 through column 6, line 29).
14. Gullman does not disclose a USB and a USB interface controller for communicating with the USB bus of the host device and, if permitted, for transmitting data from said processor; a flash memory device for storing at least one permission for determining access to the resource; and, a flash memory controller for controlling said flash memory device. Helland discloses these things in column 5 (line 55) through column 6 (line 5) and column 6 (lines 13-27). Therefore, it would have been obvious to

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a person having ordinary skill in the art at the time the invention was made to modify Gullman to include the use of flash memory and universal serial bus because both flash and universal serial bus were well known in the art as storage and connectivity options at the time the invention was made.

15. Regarding claim 4, Gullman discloses: The storage system of claim 1, wherein said biometric detection device further comprises: a sample collector for collecting said biological parameter of the user (see column 3 (lines 36-55)).

16. Regarding claim 6, Gullman discloses: The storage system of claim 4, wherein said biological parameter of the user is a fingerprint of the user (see column 3 (lines 36-55)).

17. Regarding claim 7, Gullman discloses: The storage system of claim 1, further comprising: (f) a RAM component for storing data for performing said at least one instruction of said data processor (see figure 2 #33).

18. Regarding claim 8, Gullman discloses: The storage system of claim 1, further comprising: (f) a cryptographic chip for encrypting and decrypting data (see figure 3).

19. Regarding claim 9, Gullman discloses: The storage system of claim 8, wherein said cryptographic chip performs an authentication process (see column 4 (line 50) through column 5 (line 14) and column 5 (lines 34-39)).

20. Regarding claim 12. , Gullman discloses: The storage system of claim 8, wherein said cryptographic chip performs encryption immediately upon receiving a command from said data processor (real-time, see column 4 (line 50) through column 5 (line 14)).

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21. Regarding claims 14 and 15, Gullman discloses: The storage system of claim 8, wherein said cryptographic chip further comprises a cryptographic chip memory for storing at least one cryptographic key and at least one cryptographic instruction for encrypting and decrypting data, such that said cryptographic chip forms a removable encryption engine; wherein said encrypted data is stored on said cryptographic chip memory (see figure 2 #33).

22. Regarding claims 17, Gullman discloses: the storage system of claim 15, wherein said cryptographic chip memory is said flash memory device (see the rejection of claim 1 above).

23. Regarding claim 16, The Examiner argues that it would be obvious make something separate that is currently combined (see the rejection of claim 17 above).

24. Claims 10, 11 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Gullman and Helland as applied to claims 8 and 12 above, and further in view of Pare et al. (US 5,805,719), hereafter referred to as Pare.

25. Regarding claims 10 and 11, Gullman and Helland disclose the information in claim 8. Gullman and Helland do not disclose that said cryptographic chip emulates a smart card and stores encrypted smart card data. Pare discloses this in column 2 (line 24) through column 3 (line 14). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Gullman and

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Helland to include the use of a smart card and encrypted smart card data because it is a current was an increasing trend in the banking industry at the time of this invention and it provides an efficient way to store information.

26. Regarding claim 13, Gullman and Helland disclose the information in claim 12. Gullman and Helland do not disclose that said cryptographic chip creates a cryptographic signature with a hash immediately upon receiving a command from said data processor. Pare discloses the use of a hash algorithm in column 62 (line 62) through column 63 (line 10). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Gullman and Helland to include a hash algorithm because it provides further security for data that may travel through an un-secure network.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MURIEL TINKLER whose telephone number is (571)272-7976. The examiner can normally be reached on Monday through Friday from 6:30 AM until 3 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on (571)272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander Kalinowski/
Supervisory Patent Examiner, Art Unit 3691

/M. T./
Examiner, Art Unit 3691

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